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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,459	08/23/2001	Charles P. Norman	ST00015USUI(108-US-U1)	2229

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THE ECLIPSE GROUP
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EXAMINER

KIM, KEVIN

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary**Application No.**

09/938,459

Applicant(s)

NORMAN, CHARLES P.

Examiner

Kevin Y. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-11 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 12-18 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Stelik (US 5,517,529 previously cited).

Claim 1.

Referring to Fig. 12, Stelik teaches a method and apparatus of “compressing” a GPS signal, comprising

receiving the GPS signal from a remote location (satellite) via a wireless communication link (see col.4, lines 41-50),

removing a carrier component of the GPS signal (see downconversion 401),

matching a comb filter to the GPS signal to obtain a first output signal (I and Q) comprising filter lines and

frequency shifting the filter lines in the first output signal to produce a compressed GPS signal (see frequency multipliers 464A and 466A which function to shift the frequency of an input signal).

Note that the frequency mixers 464A and 466A were read to produce a “compressed GPS signal” since the claim only requires a frequency shifting operation to produce so-called compressed GPS signal. In other words, lacking the definition of

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“compressed” any frequency shifting operation is considered as producing a “compressed” signal.

Claim 12.

Referring to Fig. 12, Stelik teaches an apparatus of “compressing” a GPS signal, comprising

a receiver (102) configured to receive the GPS signal from a remote location (satellite) via a wireless communication link (see col.4, lines 41-50),

a first mixer (402, 403) coupled to the receiver for removing a carrier component of the GPS signal to produce a first resultant signal (I and Q),,

a comb filter (460A, 462A) coupled to the first mixer to filter the first resultant signal and produce a second resultant signal (I,Q) that includes a plurality of signals dispersed over a frequency spectrum and

a first frequency shifter (464A and 466A) to shift the frequencies of the plurality of signals in the second resultant signal to produce a compressed GPS signal (see frequency multipliers 464A and 466A which function to shift the frequency of an input signal).

Note that the frequency mixers 464A and 466A were read to produce a “compressed GPS signal” since the claim only requires a frequency shifting operation to produce so-called compressed GPS signal. In other words, lacking the definition of “compressed” any frequency shifting operation is considered as producing a “compressed” signal.

Claim 13.

Stelik shows that the first frequency shifter includes at least one frequency generator (468A, 470A) to generate one or more of varying frequencies and a plurality of mixers (464A, 466A), coupled to the comb filter (460A, 462A) and to the at least one frequency generator (468A, 470A) for shifting the frequencies of the plurality of signals in the second resultant signal.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 2 and 14 calls for a second frequency shifting/shifter the compressed signal to generate a second compressed signal. However, no disclosure supporting the subject matter is found the originally filed specification. Fig.1 shows “the compressed signal” (112) which is generated after a GPS signal is downconverted at the mixer (110) and subjected to the comb filter (120). However, Fig.1 shows no additional frequency shifting element operating on the “compressed” signal (122). The “compressed signal” is next applied to a bandpass filter (128) which cannot shifting the frequency of an input signal.

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Claims 3,4,15-18 are also rejected for the same reason as dependent on a rejected claim.

Claim Objections

5. Claims 16 and 17 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The subject matter cited in claims 16 and 17 are already recited in claims 13 and 14 respectively. Since claims 16 and 17 are dependent on claims 13 and 14 via claim 15, claims 16 and 17 redundantly recite the same subject matter of claims 13 and 14, thus failing to further limit the subject matter of a previous claim.

Allowable Subject Matter

6. Claims 5-11 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 27, 2007
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KEVIN KIM
PRIMARY PATENT EXAMINER

Handwritten signature of Kevin Kim, consisting of a stylized 'K' followed by 'Kim'.